

Amendments to the Claims:

1. (currently amended) A method for computerized extracting of scheduling information from a natural language text for automatic entry into a calendar application, the method comprising the following steps:
- 5
- (a) parsing the natural language text to build a dependency tree by segmenting each sentence in the natural language text into words, building the dependency tree containing dependency pairs by comparing word pairs in the natural
- 10 language text with a dependency database, and adding the word pairs found in the dependency database as dependency pairs to the dependency tree;
- (b) determining if the natural language text contains scheduling information by calculating a probability sum for the dependency tree; and
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- (c) if the probability sum exceeds a predetermined value, extracting scheduling information from the dependency tree and exporting the scheduling information to the calendar application;
- 20 wherein building the dependency database includes the following steps:
- segmenting each sentence in a text corpus into words, wherein the text corpus contains a plurality of sample natural language texts containing scheduling information;
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- for each sentence in the text corpus, checking all possible combinations of word pairs to determine if the word pair has a high co-occurrence in the text corpus;
- if the word pair has ^{the} ~~[[a]]~~ high co-occurrence in the text corpus, determining ~~a~~ ^{the} head word using a tagged corpus, and checking the validity of the word pair
- 30 using violation constraints, wherein the tagged corpus specifies ~~the~~ actual head words for sentences relevant to scheduling information in the text corpus and

contains dependencies for all other words with respect to the actual head words,
and the violation constraints specify illegal dependency structures;

5 if the word pair is a valid dependency pair, computing ~~the~~ a probability of the
word pair, adding the word pair as a dependency pair to the dependency database,
and adding the probability of the dependency pair to the dependency database,
wherein the probability of the dependency pair corresponds to ~~the~~ a frequency of
the word pair in the text corpus; and

10 repeating the above steps until no new dependency pairs are identified.

2. (canceled)

15 3. (currently amended) The method of claim 1, wherein when building the
dependency tree:

for each sentence in the natural language text, forming ~~[[a]] the~~ ^a the head word list of
all possible head words in the sentence; and

20 pairing each word in each sentence in the natural language text with ~~the~~ ^{the} the possible
head words in the head word list to form ~~[[a]] the~~ the word pair, wherein if the word
pair formed by the word and ~~the~~ a possible head word is found in the
dependency database, adding the word pair formed by the word and the possible
head word as ~~[[a]] the~~ the dependency pair to the dependency tree.

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4. (canceled)

30 5. (currently amended) The method of claim 1, wherein determining if the natural
language text contains scheduling information further comprises calculating a
the probability sum for the natural language text by adding up probabilities for
all the dependency pairs in the dependency tree, ~~the~~ ^{the} a probability of each
dependency pair corresponding to ~~the~~ ^{the} a frequency of the dependency pair in ~~[[a]]~~

the text corpus, the text corpus containing a plurality of sample natural language texts containing scheduling information.

- 5 6. (original) The method of claim 1, wherein after extracting scheduling information from the natural language text, the method further comprising computing a value for the scheduling information.
- 10 7. (original) The method of claim 1, wherein after extracting scheduling information from the natural language text, the method further comprising sending a confirmation message to a user to confirm the scheduling information.
- 15 8. (original) The method of claim 1, wherein exporting the extracted scheduling information to the calendar application further comprises sending a confirmation message to the calendar application.
9. (original) The method of claim 1, wherein the natural language text is a natural language e-mail.
- 20 10. (currently amended) A personal organization apparatus comprising:
- a processor for executing code in the personal organization apparatus; and
- a storage unit connected to the processor for storing data used by the processor including a natural language text, the storage unit including a dependency database, the dependency database specifying a plurality of dependency pairs and ~~the~~ a corresponding probability of each dependency pair, each dependency pair being a word pair found in a text corpus, ~~the~~ a probability of the dependency pair corresponding to ~~the~~ a frequency of the word pair in the text corpus, and the text corpus including a plurality of sample natural language texts containing
- 30 scheduling information; and
- wherein the processor parses the natural language text to build a dependency tree

in the storage unit, determines if the natural language text contains scheduling information by calculating a probability sum for the dependency tree, and if the probability sum exceeds a predetermined value, extracts scheduling information from the dependency tree and exports the scheduling information to a calendar application;

the processor also builds the dependency tree in the storage unit containing dependency pairs by comparing word pairs in the natural language text with the dependency database and adding the word pairs found in the dependency database as dependency pairs to the dependency tree, calculates a the probability sum for the natural language text by adding up probabilities for all the dependency pairs in the dependency tree, and if the probability sum exceeds a predetermined sum, extracts scheduling information from the dependency tree and exports the scheduling information to ~~[[a]]~~ the calendar application; and

the processor further builds the dependency database using the text corpus, wherein for each sentence in the text corpus, the processor checks all possible combinations of ^{the} word pairs to determine if the word pair has a high co-occurrence in the text corpus; if the word pair has ^{the} ~~[[a]]~~ high co-occurrence in the text corpus, the processor determines ~~the~~ a head word using a tagged corpus, and checks the validity of the word pair using violation constraints, wherein the tagged corpus specifies actual head words for sentences relevant to scheduling information in the text corpus and contains dependencies for all other words with respect to the actual head words, and the violation constraints specify illegal dependency structures; and if the word pair is a valid dependency pair, the processor determines ~~the~~ frequency of the word pair in the text corpus and adds the word pair as ^{the} a dependency pair to the dependency database and adds the frequency of the word pair as the probability of the dependency pair to the dependency database.

11. (canceled)

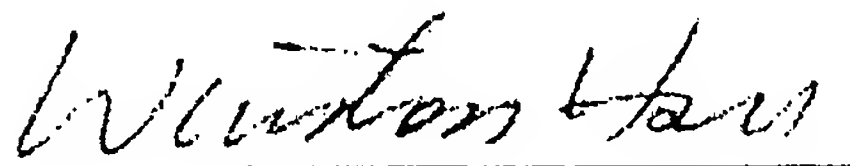
12. (currently amended) The personal organization apparatus of claim 10, wherein when the processor builds the dependency tree:
- 5 for each sentence in the natural language text, the processor forms a head word list of all possible head words in the sentence, the head word list being stored in the storage unit; and
- 10 the processor pairs each word in each sentence in the natural language text with ~~the~~ possible head words in the head word list, wherein if the word pair formed by the word and the possible head word is found in the dependency database, the processor adds the word pair formed by the word and the possible head word as ~~a~~ the dependency pair to the dependency tree.
- 15 13. (canceled)
14. (previously presented) The personal organization apparatus of claim 10, wherein the processor repetitively builds the dependency database until no new dependency pairs are identified.
- 20 15. (previously presented) The personal organization apparatus of claim 10, wherein when building the dependency database the processor further segments each sentence in the text corpus into words.
- 25 16. (original) The personal organization apparatus of claim 10, wherein the processor further segments each sentence in the natural language text into words.
17. (original) The personal organization apparatus of claim 10, wherein after extracting scheduling information from the natural language text, the processor
- 30 computes a value for the scheduling information.
18. (original) The personal organization apparatus of claim 10, wherein after

extracting scheduling information from the natural language text, the processor sends a confirmation message to a user interface module to confirm the scheduling information.

- 5 19. (original) The personal organization apparatus of claim 10, wherein when the processor exports the scheduling information to the calendar application, the processor further sends a confirmation message to the calendar application.
- 10 20. (original) The personal organization apparatus of claim 10, wherein the natural language text is a natural language e-mail.

Sincerely yours,

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)

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